Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-9. (Cancelled)

Claim 10. (New) A method for detecting location of an object in a detection field, using a detection device that scans the detection field, said method comprising:

scanning the detection field at predetermined angular increments, and sensing corresponding reflection signals;

when sensing a reflection signal of the object at an angle φI (I = 1, 2,...N), adjusting the angular increments refined in the angular range between the angles φi-1 and φi+1 as a function of signal propagation times ti-1, ti and ti+1 of reflection signals sensed at the angles φi-1, φi and φi+1.

Claim 11. (New) The method as claimed in Claim 10, wherein at least one additional angle φz (z=1,2,...,N) which is to be sensed is introduced into the angular range between the angles φi-1 and φI, or φi and φi+1, if an absolute propagation time difference between the signal propagation times ti and ti-1 or ti and ti+1 of the reflection signals exceeds a predetermined threshold value.

Claim 12. (New) The method as claimed in Claim 11, wherein the method is continued until reliable detection of the object is ensured.

Claim 13. (New) The method as claimed in Claim 11, wherein the additional angle φz is determined in an interval nesting method.

Claim 14. (New) The method as claimed in Claim 11, wherein the additional angle φz is determined in an iteration method, with suitable weighting.

Claim 15. (New) The method as claimed in Claim 11, wherein scanning takes place substantially horizontally.

Claim 16. (New) The method as claimed in Claim 11, wherein scanning takes place substantially vertically.

Claim 17. (New) The method as claimed in Claim 11, wherein scanning takes place at a predetermined angle of inclination.

Claim 18. (New) A device for detecting an object in a detection field for the purpose of carrying out the method as claimed in Claim 10, wherein the angular increments can be set in the angular range between two angles φi-1 and φi as a function of signal propagation times ti-1 and ti of corresponding reflection signals sensed at the angles φi-1 and φi.

Claim 19. (New) A method for detecting spatial location of an object within a detection field, said method comprising:

emitting scanning signals at predetermined sensing angles distributed across said detection field;

for each such scanning signal, sensing a corresponding reflection signal;

determining a propagation time for each reflection signal;

for each pair of adjacent reflection signals determining a propagation time difference;

for any such pair of adjacent reflection signals for which a determined propagation difference exceeds a predetermined threshold value, adjusting the sensing angle between scanning signals corresponding to such pair of adjacent reflecting signals, and repeating the preceding steps.

Claim 20. (New) The method according to Claim 19, wherein said adjusting step comprises introducing an additional scanning signal between such pair of adjacent reflection signals.

Claim 21. (New) The method as claimed in Claim 20, wherein the method is continued until reliable detection of the object is ensured.

Claim 22. (New) The method as claimed in Claim 20, wherein the orientation of the additional scanning signal is determined in an interval nesting method.

Claim 23. (New) The method as claimed in Claim 20, wherein the the orientation of the additional scanning signal is determined in an iteration method, with suitable weighting.